Measurement in Social Research

Validity and Reliability

Levels of Measurement
The Measurement Process

How do we know a measure is trustworthy?

Two Criteria:

**Reliability** = consistency, dependability, repeatability

**Validity** = accuracy in measurement, truthfulness in representing the construct you defined
The Measurement Process

Quantitative Validity

(1) **Face**: Do others accept your measure as valid?
(2) **Criterion**: Does your measure match another accepted measure of the same construct?
(3) **Predictive**: Does your indicator truly predict future events?
(4) **Content**: Does your measure capture the whole conceptual definition?
The Measurement Process

Quantitative Reliability

(1) **Stability**: Across Time
(2) **Representative**: Across Groups
(3) **Equivalence**: Across Indicators
The Measurement Process

Qualitative Validity

(1) **Authenticity**: Does the narrative accurately represent reality as experienced by research subjects?

(2) **Plausibility**: Is the description powerful and persuasive? Is it supported by diverse data? Does it represent “dense” connections?
The Measurement Process

Qualitative Reliability

(1) **Dependability/Consistency**: Is the form of observation consistent over time?
Levels of Measurement

Quantitative Variables

(1) Discrete Variables
Have a relatively fixed set of separate values/attributes that can be measured in categories

(2) Continuous Variables
Have an infinite number of values/attributes that can be measured on a continuum
Levels of Measurement

Quantitative Variables

(1) Nominal: Can be expressed only in categories

(2) Ordinal: Categories can be ranked

(3) Interval: Ranks are equidistant

(4) Ratio: Scale includes a true zero